continued from front

the needs of a population estimated to reach two million by the turn of the century. Today, more than six million people living in 16 counties depend on essentially the same system.

The region as we know it would not be possible without this water management network. "The system safeguards our underground water supplies and allows many of us to live and work in places that once were underwater for weeks or months at a time," said Tommy Strowd, the District's Operations Manager.

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– Tommy Strowd
Operations Manager

Since construction slowed in the 1970s, the District and the Corps have added to this foundation, refining and updating the system's parts and processes. "These tweaks and additions have made it possible for the regional system to far surpass its design limitations," Strowd said, "until the worst of the region's natural cycles of rainy and dry season visits; reminding us that this ingenious system does indeed have limitations and weaknesses."

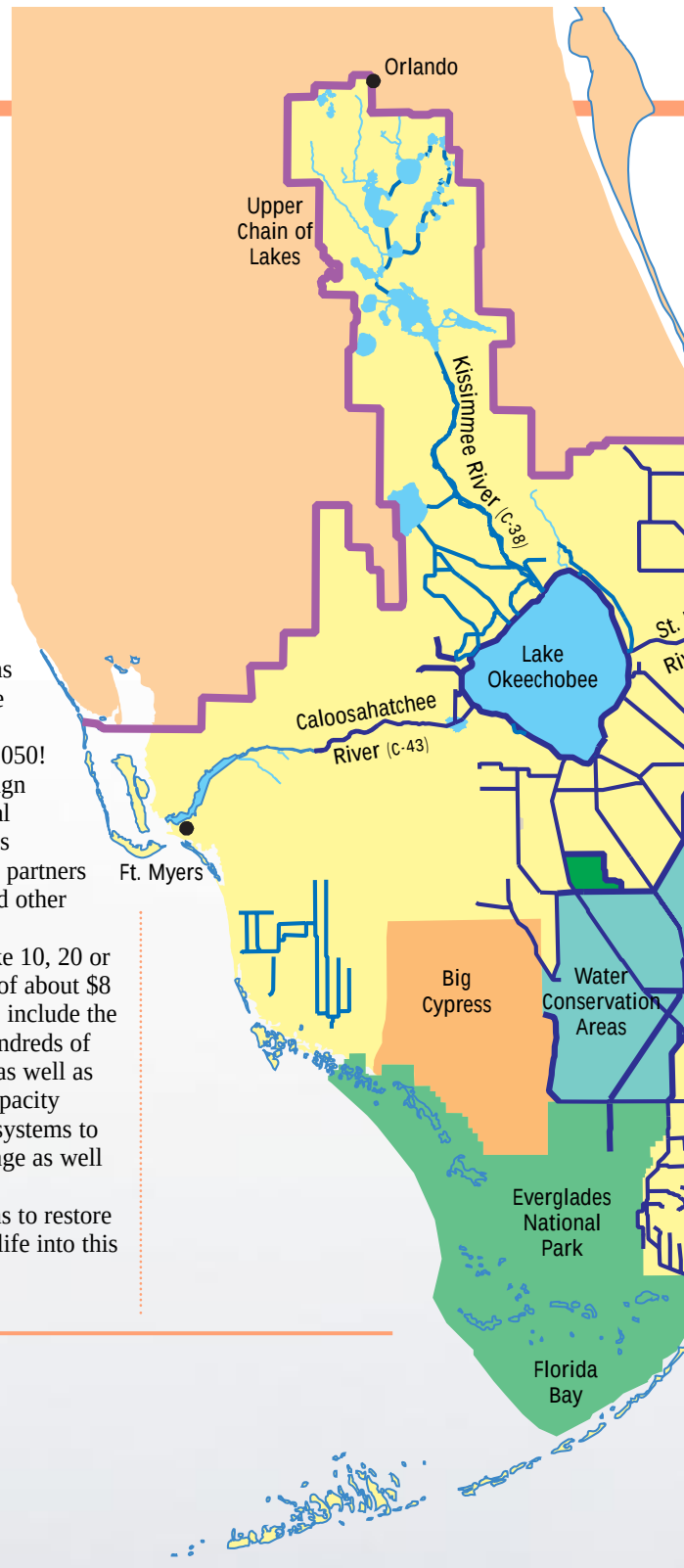
Because the existing system does not have enough land or an infrastructure that allows both short and long-term storage of large quantities of flood water, millions of gallons of freshwater are routinely directed to our coastlines – at times altering the fresh and saltwater balance of coastal estuaries and bays.

While people are drawing on existing water supplies or building new communities, they also expect to stay dry year-round. Satisfying those often competing needs can mean the environment is shortchanged or overwhelmed by too little or too much water, going to the wrong places at the wrong times. Variations in the quantity and timing of water also have an impact on water quality. The lack of storage also often robs water managers of options in deciding where limited supplies – or overwhelming excesses – can and should be channeled.

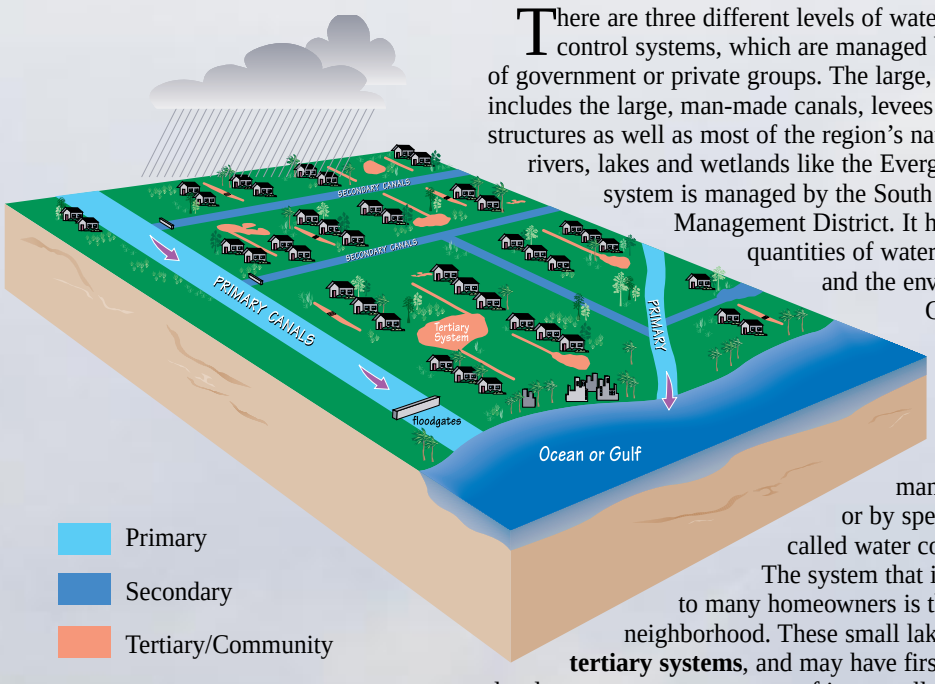
"Those limitations will be even more critical as our population continues to grow," said George Horne, Deputy Executive Director for Operations and Maintenance Resources. The region's population is likely to double to 12 million people by 2050! That's why a system-wide redesign and reconstruction of the regional system is underway. Much of this retooling will be completed with partners including the Corps, the state and other federal and local governments.

"Most of these efforts will take 10, 20 or 30 years to complete – at a cost of about $8 billion," Horne said. These plans include the acquisition and restoration of hundreds of thousands of acres of new land, as well as the construction of new, large-capacity storage wells and surface water systems to dramatically increase water storage as well as improve water quality.

You can read more about plans to restore the Everglades and breathe new life into this regional system at our website (www.evergladesplan.org).



Water Management: A Shared Responsibility



This graphic shows how the varied levels of water management systems connect. Many of these connections occur below the surface, and are not visible. Others can be more plainly seen.

There are three different levels of water management or water control systems, which are managed by several different kinds of government or private groups. The large, **primary system** includes the large, man-made canals, levees and water control structures as well as most of the region's natural waterways: its rivers, lakes and wetlands like the Everglades. This regional system is managed by the South Florida Water Management District. It helps ensure sufficient quantities of water are available for people and the environment.

Connected to this system is a somewhat smaller network of canals, lakes and water storage areas. These **secondary systems** are usually managed by counties, cities or by special local governments called water control districts.

The system that is probably most familiar to many homeowners is the one in their neighborhood. These small lakes and waterways are **tertiary systems**, and may have first been created by a development company as part of its overall creation of a community. Once these communities have been completed, the responsibility for maintenance often falls to homeowners' groups or associations.

All things really are connected

Each of these systems is connected with, and to some degree dependent upon, the other systems. Generally, newer communities are built with more efficient systems, which conserve water, preserve water quality and alleviate flooding. Older communities, developed 20 or more years ago, were built with less stringent restrictions and requirements. That means that some are not built atop the elevations of land that are now required. Older communities may also have older, deteriorating storm water and/or sewage systems. All of these factors often mean that some older communities are far more prone to flooding.

Problems or inefficiencies in some parts of the many-layered systems can cascade and affect other parts, even if they are tens or hundreds of miles apart! That's why, for example, a large storm bringing heavy rains over a large part of the region for days or weeks can mean widespread flooding in streets and yards that can take days, or even weeks to resolve. Heavy flooding or failing systems in one community can worsen problems upstream or downstream in communities miles away – even when those communities may have received a lot less rain than their neighbors.

Maintenance of all of these systems is critical. Heavy plant growth or clogs caused by debris can cause systems to fail, or to be less effective. Find out what you can do to make sure your community's system is well maintained, or determine what level of government or community might be responsible for managing the lakes and waterways in your backyard: Get a copy of "Know the Flow." Call the District's Department of Public Information at 1-800-432-2045, ext. 6883 or visit the Publications section of our web site (www.sfwmd.gov).